

**PATENT**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the **PATENT** of:

Kwak et al.

**Patent No.:** 7,289,552  
**Issued:** October 30, 2007  
**Appln. No.:** 10/644,361  
**Filed:** August 20, 2003  
**Confirmation No.:** 6406  
**For:** EFFICIENT JOINT DETECTION

Our File: I-2-0304.1US  
Date: February 6, 2008

**REQUEST FOR CERTIFICATE OF CORRECTION**

Certificate of Corrections Branch  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

A Certificate of Correction under 35 U.S.C. §§ 254, 255 and 37 C.F.R. §§ 1.322, 1.323 is requested for U.S. Patent No. 7,289,552. Correction of the following errors is requested.

**ON THE FACE PAGE**

At section (56), FOREIGN PATENT DOCUMENTS, page 1, right column, delete line 1, and insert therefor --WO 99/40698 8/1999--.

At section (56), OTHER PUBLICATIONS, page 2, right column, line 9, after the word "Journal", delete "in" and insert therefor --on--.

### **IN THE DRAWINGS**

At FIG. 4B, block #56, top line, after the word "TO", delete "SLOVE" and insert therefor --SOLVE--.

At FIG. 10, block #226, top line, delete "CHOLSESKEY", and insert therefor --CHOLESKY--.

### **IN THE SPECIFICATION**

At column 4, line 7, before the word "function", delete "hermetian" and insert therefor --Hermitian--.

At column 4, line 61, before the words "an upper", delete "a".

At column 4, line 66, before the word "inverse", delete "a" and insert therefor --an--.

At column 5, line 24, before the word "product", delete "kronecker" and insert therefor --Kronecker--.

At column 5, line 26, after the word "elements", delete "fil" and insert therefor -- $f_{ij}$ --.

At column 6, line 66, after the word "matrix", delete "A" and insert therefor -- $\Lambda$ --.

At column 7, line 44, after the word "using", delete "PFA\_FFTs", and insert therefor --PFA-FFTs--.

At column 8, line 34, before "Q by K", delete "an" and insert therefor --a--.

At column 8, line 35, before "Q by 1", delete "an" and insert therefor --a--.

At column 8, line 48, before the word "Equation", delete "decom position" and insert therefor --decomposition--.

At column 9, line 42, before the word "inverse", delete "a" and insert therefor --an--.

At column 10, line 15, before the word "received", delete "a".

At column 10, delete Equation 35 and insert therefor  
-- $\underline{d}^{(k)} = [d_1^{(k)} d_2^{(k)} \dots d_N^{(k)}]^T$ ,  $1 \leq k \leq K$ --.

At column 11, delete Equation 41, and insert therefor -- $\underline{r} = [r_1^T \ r_2^T \ \dots \ r_M^T]^T$ --.

At column 11, line 33, after "R", insert --is--.

At column 12, line 8, after " $\underline{r}^{(m)}$ , the", delete "over all" and insert therefor  
--overall--.

At column 12, line 23, before the word "matrix", delete "Fouriertrans form" and insert therefor --Fourier transform--.

At column 13, delete Equation 58, and insert therefor -- $A_c = [A_c^{(1)^T} \ A_c^{(2)^T} \ \dots \ A_c^{(M)^T}]^T$ --.

At column 13, delete 5<sup>th</sup> segment of Equation 59, line 34, and insert therefor  
-- =  $F_{(K)}^H \underline{Y}$ --.

At column 13, line 67, before the words "is directly", delete " $\Lambda^{R(1)}$ " and insert therefor  $\Lambda_R^{(1)}$ .

At column 14, delete Equation 65, and insert therefor --Forward Substitution:

Find  $\underline{z}^{(1)}$  in  $\mathbf{G}^{(1)} \underline{z}^{(1)} = \underline{x}^{(1)}$ , where  $\underline{z}^{(1)} = \mathbf{G}^{(1)}^H \underline{y}^{(1)}$ .

At column 15, line 3, after " $\mathbf{F}(\underline{r}_c^{(1)})$ ", delete " $\mathbf{F}(\underline{c}^{(2)})$ " and insert therefor  $\mathbf{F}(\underline{r}_c^{(2)})$ .

**Patentee:** Kwak et al.  
**Patent No.:** 7,289,552

**REMARKS**

Patentees believe that the above errors are of such a nature as to justify the issuance of a Certificate of Correction. Patentees have enclosed a completed Certificate of Correction Form PTO/SB/44.

Since at least one of the errors was caused by Applicants, please charge the surcharge fee pursuant to C.F.R. §1.20(a) of \$100.00 to the Deposit Account of InterDigital Communications Corporation, Deposit Account No. 09-0435.

Patentees respectfully request that the Certificate of Correction be issued.

Respectfully submitted,

Kwak et al.

By \_\_\_\_\_

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RDL/dcb

## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

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INVENTOR(S) : Kwak et al.

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This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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At column 8, line 35, before "Q by 1", delete "an" and insert therefor --a--.

At column 8, line 48, before the word "Equation", delete "decom position" and insert therefor --decomposition--.

At column 9, line 42, before the word "inverse", delete "a" and insert therefor --an--.

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At column 10, delete Equation 35 and insert therefor -- $\underline{d}^{(k)} = [d_1^{(k)} d_2^{(k)} \dots d_N^{(k)}]^T$ ,  $1 \leq k \leq K$ --.

At column 11, delete Equation 41, and insert therefor -- $\underline{r} = [r_1^T r_2^T \dots r_M^T]^T$ --.

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At column 13, delete 5<sup>th</sup> segment of Equation 59, line 34, and insert therefor  $\mathbf{F}_{(K)}^H \mathbf{Y}$ .

At column 13, line 67, before the words "is directly", delete " $\mathbf{A}^{R(0)n}$ " and insert therefor  $\mathbf{A}_R^{(0)}$ .

At column 14, delete Equation 65, and insert therefor  
--Forward Substitution: Find  $\mathbf{Z}^{(l)}$  in  $\mathbf{G}^{(l)} \mathbf{Z}^{(l)} = \mathbf{X}^{(l)}$ , where  $\mathbf{Z}^{(l)} = \mathbf{G}^{(l)^H} \mathbf{Y}^{(l)}$ .

At column 15, line 3, after " $\mathbf{F}(\mathbf{L}_c^{(1)})$ ", delete " $\mathbf{F}(\mathbf{L}_c^{(2)})$ " and insert therefor  $\mathbf{F}(\mathbf{L}_c^{(2)})$ .

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